CHAPTER 2
General Responses

A number of issues were raised by multiple commenters. This section provides a general response to each of those issues. The issue area is followed by a comprehensive response.

2.1 Impacts of the General Plan and Specific Plan Amendments

The proposed General Plan and F/TSP amendments apply within three distinct geographical areas:

- County of Orange,
- F/TSP area, and
- UAR District of the F/TSP.

The UAR District is located within the F/TSP area, which is located within the County and some of the proposed amendments apply only to the UAR District, some amendments would affect the entire F/TSP area, and some amendments would apply to the entire unincorporated County.

Responses to comments regarding potential environmental impacts of these proposed amendments and information on whether the Saddle Crest Homes Draft EIR adequately analyzed potential environmental impacts of the proposed amendments are provided below with respect to these three geographical areas. The proposed amendments have been available for review on the County's website, along with the Draft EIR. In addition, the proposed amendments are included as **Appendix A** to this Final EIR.

2.1.1 Proposed Amendments that Apply to the County

1. Amendment to the Transportation Element (Growth Management Plan, Transportation Implementation Manual) of the General Plan to change the traffic methodology used for Santiago Canyon Road.

The amendment being proposed to the Growth Management Plan, located in the Transportation Element would change the methodology for evaluating the required Level of Service (LOS) "C" on Santiago Canyon Road based on the physical volume to capacity (v/c) ratio of Santiago Canyon Road rather than based on the Highway Capacity Manual (HCM) standard for peak hour volumes based on percent time spent following (PTSF).

The traffic analysis contained in the Draft EIR not only analyzed the potential environmental impacts associated with the proposed project (based on the above amendment), but also analyzed the potential environmental impacts for the buildout conditions found within the County of Orange General Plan, and General Plans of surrounding cities. This information includes all potential development within the F/TSP area. The modeling for the proposed project's traffic study was based upon the socio-economic projections for the area.[1] It was reflective of the projected growth in population and employment in the region. According to the modeling consultant, it reflected 2006 Orange County projections (which represented the buildout of the area, including the F/TSP area). All anticipated growth and plans were included in the buildout traffic projections. Because the model includes several parcels originally designated in the F/TSP for development which have since been sold for conservation purposes, the traffic study included a conservative analysis that overestimated the amount of development that could occur within the F/TSP area.

The HCM PTSF methodology does not provide the most realistic assessment of traffic conditions on Santiago Canyon Road, because that methodology does not reflect actual operating conditions on the highway, as demonstrated in the Draft EIR.

Furthermore, it has been shown that the physical conditions which occur on Santiago Canyon Road (i.e., separate turning lanes, wide shoulders, limited heavy vehicles, etc.) do not match the road conditions for the type of roads for which the HCM's PTSF methodology is typically used. Based upon the HCM's PTSF analysis, Santiago Canyon Road would be projected to be operating at average speeds of 43 to 44 miles per hour (mph). In reality, the travel runs revealed average travel speeds of 52.4 mph during the A.M. peak hour and 51.0 mph during the P.M. peak hour, higher than the calculated average speeds of 44.0 mph, and indicative of little if any congestion or obstruction of flow. This demonstrates that the HCM's PTSF methodology is not a good measure of actual operating conditions on Santiago Canyon Road.

The v/c methodology utilized in the Draft EIR showed that LOS C or better could be maintained with the build out of the F/TSP, including the project. This analysis documented that there would not be a significant impact due to the change in methodology. The Draft EIR evaluates the traffic effects associated with the change in the methodology for both the near-term and long-term conditions and shows that traffic conditions will be at LOS A along all of the Santiago Canyon Road links within the F/TSP.

The v/c methodology is already utilized by the cities of Orange, Lake Forest, Mission Viejo and Rancho Santa Margarita. All portions of Santiago Canyon Road and El Toro Road that are not within the unincorporated County (including the portion of Santiago Canyon Road in the City of Lake Forest, immediately adjacent to the project site) are evaluated by v/c. All roads in the unincorporated County area except for Santiago Canyon Road are currently evaluated with v/c methodology. Thus consistency in methodology is attained by this change to the Transportation Implementation Manual (TIM).

[1] The traffic model used the Orange County Transportation Authority, *Orange County Transportation Analysis Model* (OCTAM), see page 2 of the Traffic Impact Study, included as Appendix K of the Draft EIR.

In the *Endangered Habitats League* case, it was stated that "*The SEIR/EIR must disclose traffic impacts on Santiago Canyon Road, as described under the county general plan*." The argument that the EIR analysis was invalid was based on the fact the appendices to the Transportation Element of the County's General Plan required that the LOS on Santiago Canyon Road be maintained at LOS C, using the HCM method (*Endangered Habitats League v. County of Orange* (2005) 131 Cal. App 4th 777, 783, 32 Cal.Rptr.3d 177). The court did not consider whether evaluation of the project's traffic impacts on Santiago Canyon Road under HCM or v/c methodology, yields more reliable projections of actual traffic impacts. Use of the v/c method to calculate traffic impacts is supported expert opinion, as well as its use in all other adjacent jurisdictions.

2. Amendment to Chapter 1, Introduction of the General Plan to describe interpretation of the General Plan and the County's Specific Plans, and how it affects implementation of projects in the County.

The amendment being proposed to the Introduction of the General Plan is to clarify that the Board of Supervisors has the authority to interpret its planning policy documents (i.e., General Plan and Specific Plans), and, in so doing, can give greater weight to some goals, objectives, policies or other provisions over other goals, objectives, policies or other provisions in a manner that harmonizes them in light of the purposes of those plans. The amendment also states that the Board shall consider the environmental consequences of its actions in applying the provisions of the General Plan or Specific Plans in a manner it determines best advances that plan's goals relating to environmental resources. The proposed amendment reflects the language that courts have historically used to describe the authority that a Board of Supervisors or City Council has in determining consistency with a general or specific plan. In that process, it is also important to note that a general plan takes precedence over a specific plan and therefore, while the specific plan must be consistent with the general plan, the general plan is not limited by or required to be consistent with a specific plan.

The proposed amendment to the General Plan is intended to describe the Board of Supervisors' authority to interpret the General Plan and supporting specific plans. This amendment is intended to summarize existing law governing a legislative body's determination as to whether a proposed action is consistent with the jurisdiction's general plan and any applicable specific plan. The amendment does not change existing policy. It simply articulates well-established legal principles relating to interpretation and application of general plan provisions, including plan provisions relating to protection of environmental resources. No environmental impacts will occur because the amendment mirrors existing law as reflected in the judicial decisions that have described the principles that govern interpretation of general and specific plans and application of the consistency doctrine applicable to general and specific plans.

Judicial decisions have confirmed that "perfect conformity" with each and every policy in a general plan is not required, as no proposed project can satisfy entirely every such policy (*see, e.g., Sequoyah Hills Homeowners Ass'n v. City of Oakland*, 23 Cal. App.4th 704, 719 (1993)). Rather, a project is consistent with the general plan if it furthers general plan policies and

objectives and does not obstruct their attainment (*Endangered Habitats League, Inc. v. County of Orange*, 131 Cal. App. 4th 777, 782 (2005)). As the court explained in *Sequoyah Hills Homeowners Ass'n v. City of Oakland*:

> [I]t is beyond cavil that no project could completely satisfy every policy stated in the [general plan], and that state law does not impose such a requirement. A general plan must try to accommodate a wide range of competing interests—including those of developers, neighboring homeowners, prospective homebuyers, environmentalists, current and prospective business owners, jobseekers, taxpayers, and providers and recipients of all types of city-provided services—and to present a clear and comprehensive set of principles to guide development decisions. Once a general plan is in place, it is the province of elected city officials to examine the specifics of a proposed project to determine whether it would be "in harmony" with the policies stated in the plan (Source: 23 Cal. App.4th at 719 (internal citations omitted)).

The courts also have determined that a decision-making body, such as the Board of Supervisors, has discretion to weigh and balance policies where there is no fundamental inconsistency between a project and a plan policy (*see Clover Valley Found v. City of Rocklin*, 197 Cal. App. 4th at 239; *Sierra Club v. County of Napa*, 121 Cal. App. 4th 1490, 1511 (2004)).

The proposed amendment does not alter the principle that consistency with an objective, mandatory regulation is required. The amendment does not state that the foregoing principles regarding plan consistency apply to regulations, and excludes them from its references to these principles. Judicial decisions have confirmed that a proposed project may not directly conflict with a "specific" and "mandatory" policy in an approved plan and that compliance with such mandatory policies is required (*Clover Valley Found. v. City of Rocklin*, 197 Cal. App. 4th 200, 239 (2011) ("[G]eneral consistencies with plan policies cannot overcome specific, mandatory and fundamental inconsistencies with plan policies" (internal quotation marks omitted)); *Endangered Habitats League*, 131 Cal. App. 4th at 782 ("A project is inconsistent if it conflicts with a general plan policy that is fundamental, mandatory, and clear"). The proposed General Plan amendment does not alter the effect of this legal principle, does not provide an exception to this principle, nor is that the intention.

The ability and necessity for a decision-making body to interpret its adopted general plan and specific plans is an inherent part of the development review process, not only in Orange County, but in cities and counties throughout the state.

The plan amendment reflects the fact that decision-makers are often required to determine the relative priorities of the values upon which various policies or implementation actions in a plan are based, when interpreting and applying them. It does not, however, change the way in which mandatory regulations must be applied. While it is explanatory, it will not change the way the County interprets or applies its General Plan and specific plans.

2.1.2 Proposed Amendments that Apply to the F/TSP Area

There are five amendments that affect the F/TSP area (one of which is contained both within the General Plan, as well as the F/TSP, and some of which are also duplicated in other portions of the F/TSP document). They are discussed below.

1. Amendment to the current language in the Growth Management Element of the General Plan. [2]

This amendment relocates a General Plan provision relating to the F/TSP from the Growth Management Element to the Land Use Element, since it was not intended as a growth management provision, and amends its language. The existing language in the Growth Management Element of the General Plan states: "New development within the Silverado-Modjeska Specific Plan and the Foothill Trabuco Specific Plan planning areas shall be rural in character and shall comply with the policies of these plans in order to maintain a buffer between urban development and the Cleveland National Forest." The proposed amendment would modify that text to read as follows:

> "New development within the Silverado-Modjeska Specific Plan ~~and the Foothill Trabuco Specific Plan~~ planning area~~s~~ shall be rural in character and shall comply with the policies of ~~these~~ **that** plan~~s~~ in order to maintain a buffer between urban development and the Cleveland National Forest."

The following amended language would be added to the Land Use Element "New development within the Foothill/Trabuco Specific Plan planning area shall be designed to maintain a buffer between urban development and the Cleveland National Forest, to be compatible with adjacent areas, and to reflect the goals of that Plan."

The amended language is being proposed to remove language stating that new development in the F/TSP shall comply with "policies" of the F/TSP, as (unlike the Silverado-Modjeska Specific Plan) none of the provisions of the F/TSP are referred to in the F/TSP as "policies." This discrepancy was recognized by the Court of Appeal in the *Endangered Habitats League v. County of Orange* decision. The court viewed the language in the General Plan indicating that policies of the plans "shall be complied with" as referring to the mandatory regulations in the F/TSP. As the court stated:

> "The specific plan does not identify any 'policies.' It does, however, distinguish between mandatory and permissive provisions. A "consistency checklist" in the appendix explains that 'shall' indicates a mandatory [r]egulation to which there are no exceptions, while 'should' indicates a non-mandatory [g]uideline." The checklist states projects must be consistent with all applicable regulations, but the planning commission may approve deviations from the guidelines if it finds "the project is in *overall* compliance with the Guidelines and consistent with the Goals and Objectives of the Specific Plan."

[2] The text of this General Plan amendment is also in the F/TSP, Section I.E, Relationship to General Plan, Transition Areas for Rural Communities, where it is also proposed to be amended.

The court's decision also indicates that as a general matter, the term "policies" can be used to refer to provisions of a general or specific plan that operate as guidelines, and can be used to refer to provisions of a plan that operate as mandatory regulations. The amendment is intended to eliminate the confusion created by use in the General Plan of the term "policies" in relation to the F/TSP since that term is not used in the plan itself. The provisions of the F/TSP that are mandatory are its regulations, and the F/TSP makes it clear that projects must be consistent with all applicable regulations.

The second reason for the amendment is that the existing General Plan provision does not define rural character, and does not contain any guidance on "rural character." By contrast, the F/TSP includes specific goals and objectives relating to rural character/forest buffer and related goals and objectives which address resource preservation. The amendment is intended to convey that it is the F/TSP itself that provides the goals and objectives on rural character and forest buffer.

The proposed General Plan amendment does not change the F/TSP's goals or objectives relating to rural character, and is not intended to change the way those goals and objectives are implemented and applied. The amendment is consistent with the existing interpretation of the General Plan that the meaning and intent of the provisions of F/TSP are reflected in its goals and objectives, not the General Plan. Because this amendment will not change how the County's policies are interpreted and applied, there are no environmental effects associated with revising this provision of the General Plan.

The F/TSP itself is also proposed to be amended to be consistent with the General Plan amendment and essentially mirror the language in the General Plan amendment.

2. Amendment to the Introduction of the F/TSP to discuss advances in science and other changes that have occurred since the adoption of the F/TSP.

The amendment being proposed to the Introduction section of the F/TSP would state that there have been scientific advancements since the adoption of the F/TSP over 20 years ago that have led to understanding of environmentally superior methods to protect resources and reduce environmental impacts associated with the implementation of projects. This amendment also states that there have been other regulatory changes that have occurred since the adoption of the F/TSP. There are no environmental effects associated with the above amendment as it merely provides introductory information.

3. Amendment to add an objective to the F/TSP to allow alternate grading approaches if those approaches would reduce environmental impacts and further the F/TSP goals.

The amendment being proposed to add an objective to the F/TSP to recognize consideration of alternative grading approaches, if those alternative approaches yield an environmentally superior project.

This amendment captures the range of alternative grading approaches already allowed by the F/TSP and that will be allowed within the UAR District. In several places in the F/TSP,

alternative grading standards are allowed in the interest of achieving superior environmental outcomes. This proposed objective recognizes that the F/TSP already does allow grading alternatives for superior biological and other environmental outcomes. There are no environmental effects associated with the above amendment.

4. Amendment to several provisions of the F/TSP to allow tree mitigation that is more extensive and effective than that required by the existing F/TSP Tree Replacement Scale.

The amendment would allow the approval of a Tree Management and Preservation Plan if it provides more extensive and effective oak tree mitigation than that which would occur under the F/TSP tree replacement scale.

The proposed amendment does not mandate an alternate approach to oak tree mitigation from that required by the F/TSP tree replacement scale. Rather, it provides the ability to consider a Tree Management and Preservation Plan that "provides more extensive and effective mitigation." The environmental impacts that are expected to result from the amendment, therefore, would be that in some instances more extensive and effective oak tree mitigation will occur than under the existing provisions of the F/TSP. In addition, an amendment is proposed which would change the provision stating that large oak trees that are removed must be transplanted unless they are in poor health and would not survive transplantation; to state that oak trees must be transplanted unless they are either in poor health or would not survive transplantation. This change is also anticipated to have a positive environmental impact as it provides for more extensive and effective oak tree mitigation. Refer to General Response 2.9 for additional information regarding oak tree mitigation.

5. Amendment to the Circulation Phasing Component of the F/TSP to make it consistent with the amendments to the Transportation Element, Growth Management Plan, Transportation Implementation Manual

This F/TSP amendment is proposed in order to require the amendment to the General Plan traffic methodology for Santiago Canyon Road be implemented for projects within the F/TSP area. This amendment is simply a conforming amendment to make the F/TSP consistent with the proposed General Plan amendment.

2.1.3 Proposed Amendments that Apply to the F/TSP UAR District

There are two proposed F/TSP amendments that relate to the entire UAR District:

1. Amendment to the Site Development Standards of the UAR District allowing use of alternative grading standards and building site areas to be approved if greater overall protection of environmental resources would be achieved.

This F/TSP amendment (a conforming version of which is included in the Consistency Checklist to the F/TSP) is proposed to allow for the approval of alternative grading standards and building

site areas if the project's Area Plan shows that the approval of these alternatives would result in greater overall protection of environmental resources than would be provided through compliance with the existing standards. See **Appendix B** of this Final EIR for a copy of the Consistency Checklist.

Allowing a greater amount of grading to accommodate development within a compact footprint, rather than over a larger area, is likely to have less severe biological impacts than development alternatives involving a more disbursed development pattern.

Although this amendment covers the entire UAR District, in practicality the effect of the amendment is limited. There are a total of 100 homes remaining that could be built within the UAR District (exclusive of the proposed project) as follows:

Property Name	Number of Units Remaining
Shimomura	37
7th Day Adventist	10
Watson	47
Serrano	1
Adams	2
Carisoza	3

It should be noted that 25 units allowed on Varshney property are not included, as this parcel was recently purchased by the County and is proposed to be transferred to the United States Department of Agriculture, Forest Service (Cleveland National Forest). [3]

In order to utilize the alternative grading standards, the amendment requires that environmental superiority be demonstrated as a component of the Area Plan approval process. In the case of properties that are small with only a few lots remaining, it may be more difficult to demonstrate environmental superiority, which would reduce the number of lots for which the approval to utilize alternative grading standards could be sought. Refer to General Response 2.5 for additional information regarding how the proposed clustering of homes within Saddle Crest is an environmentally superior design.

2. An Amendment to the Site Development Standards of the UAR District to clarify open space provisions.

There are two components of the amendment proposed to the Site Development Standards of the UAR District to clarify its open space provisions. These are detailed in General Response 2.7, Removal of the Term "Natural" from the UAR District Open Space Regulation.

This proposed amendment to the Site Development Standards does not change the open space requirements for projects within the UAR District of the F/TSP. The intent is to clarify how the existing provision is to be applied with respect to allowable grading associated with initial site development activities in areas that are counted as open space for the purpose of meeting the

[3] Per Staff Report from Board of Supervisors hearing on June 26, 2012, Item No. 58.

UAR District's requirement for 66 percent open space. Such grading could include, for example, remedial grading, grading for duel modification, and grading within areas to be dedicated for common area landscaping. Any such grading would be subject to all of the requirements of the F/TSP Resources Overlay Component.

Further, removal of the word "natural" is intended to eliminate uncertainty about the type of activities allowed within open space areas that will be dedicated, such as tree planting, biological mitigation, water quality mitigation, common area landscaping, and so on. These types of activities would not themselves be expected to result in significant environmental impacts and they also would be subject to all the requirements in the F/TSP Resource Overlay Component.

As explained above, besides the proposed project, these amendments would only be relevant to those parcels within the UAR District that have some remaining development capacity. As is illustrated by the impact evaluation for the proposed project, the resource protection standards in the Resources Overlay Component of the F/TSP and UAR District regulations should be sufficient to ensure that no significant environmental effects will result from these amendments.

2.2 The Project's Consistency with the Intent of the General Plan and F/TSP

As shown in Table 3.9-2 of the Draft EIR, the proposed project would be consistent with objectives of the General Plan and F/TSP.

For example, the proposed project is consistent with Policy 1 regarding balanced land uses and Policy 3 regarding housing densities. The proposed project introduces 65 single-family homes in an area designated for suburban residential land use and would contribute to the ability of the County to meet demands for housing. In addition, the proposed project would preserve an open space area and preserve natural resources through clustering the development to the portion of the site near adjacent residential; this is consistent with Policy 7 that encourages innovative concepts that contribute to solving land use issues.

With regard to the F/TSP, the proposed project complies with Objective 1b regarding providing a buffer to Cleveland National Forest, and Objective 2.c preserving significant biological resources through Project Design Feature PDF-1 that includes approximately 51 acres of open space in the northern portion of the parcel. Similarly, the project complies with F/TSP Objective 1.d minimizing the intrusion of development and landform alteration within the viewsheds of Santiago Canyon Road by including a scenic corridor setback (PDF-5) and designing the project using similar slope gradients as existing conditions (PDF-11). Further, the proposed project is consistent with the existing limits on residential lots indicated in the F/TSP (65 lots) for the project site.

In addition, the County prepared a F/TSP Consistency Checklist (per the requirements of the F/TSP) to assist applicants, County staff, interested parties and the Planning Commission in determining whether a project proposal is consistent with the Specific Plan. Per the Consistency

Checklist, the proposed project is consistent with all of the F/TSP Regulations. It should be noted, that similar to the conclusion included in the Draft EIR, the analysis in the Consistency Checklist recognizes that without approval of certain of the proposed amendments the proposed project would be inconsistent with the F/TSP regulations. However, with the proposed amendments, the proposed project is in "*overall compliance with the Specific Plan Guidelines and with the Goals and Objectives of the Specific Plan*." A copy of the Consistency Checklist prepared by the County is included as Appendix B of this Final EIR.

2.3 Whether the Proposed Amendments Will Set a Precedent for Future Amendments

Some commenters have suggested that the amendments requested by the applicant would set a precedent for future F/TSP and General Plan amendments, and asked if other projects have requested specific plan and General Plan amendments.

The proposed amendments are legislative acts. Any property owner is free to request a change to land use regulations applicable to their property, but the legislative body is under no obligation to approve the request. A decision by the Board of Supervisors to change such a legislative policy in one situation does not act as a precedent for future legislative decision making, because each legislative decision is made based on its individual merits. As discussed on page 8-9 of the Draft EIR, the ability to update land use regulations is recognized as being within the general grant authority of local governments to regulate land use. The amendments to the F/TSP that are proposed as part of the project are included to update parts of the plan in light of advances in scientific and technical information relating to oak tree mitigation/restoration, fire management, preservation of biological resources, and hydrology relating to the protection of resources and reduction of potential impacts. The amendments do not set a precedent for future land use changes or changes in F/TSP regulations, but only reflect the reality that it is important to update plans to reflect important new information.

Commenters also requested information regarding other amendments to the F/TSP and other projects that have requested both specific plan and general plan amendments.

The first two amendments to the F/TSP were initiated by the County of Orange (Zone Change Nos. 94-6 and 98-1). These amendments were proposed to address dedication of natural resources for a one-house development, tree removal for existing developments, streamlining and clarifying grading requirements, remedial grading in open space areas, transfer of density, minor improvements to existing developments, establish consistency within the F/TSP and other Codes, and editorial corrections. However, neither of these amendments was ever adopted.

The next proposed amendment to the F/TSP was initiated by the developer for Saddleback Meadows in 1998 (Zone Change No. 98-3). This amendment modified the entire "Bridlewood Residential" (BWR) District (development standards, uses permitted, etc.) on page III-20 of the F/TSP and was adopted by Ordinance No. 02-008 in late 2002.

Another amendment, Zone Change No. 99-4, was initiated by the County in 1999. This amendment allows minor improvements to existing residences and accessory structures without going to the Planning Commission, or requiring open space dedication. This amendment was adopted by Ordinance No. 01-101 in the summer of 2001.

The applicant previously processed a project known as "Saddle Creek/Saddle Crest." On January 28, 2003, the Orange County Board of Supervisors approved the combined Saddle Creek/Saddle Crest project which included development of 162 dwelling units, 127 of which were proposed for Saddle Creek and 35 of which were proposed for Saddle Crest. One of the actions taken by the Board of Supervisors was to approve a zone change (ZC99-02) to amend the F/TSP. Subsequent to the approval; however, the Fourth District Court of Appeal of the State of California overturned the decisions of the Board of Supervisors. No other amendments to the F/TSP have been proposed with the exception of a few clarifications.

In the past there have been other General Plan amendments requested as a result of development projects, by private property owners. However as stated above, the requested amendments are evaluated based on individual merits, and a full list of General Plan amendments requested in the County is extensive and does not relate to the proposed project or the adequacy of the EIR.

2.4 Whether the Specific Plan Protects Against Changes

Some commenters stated that a specific plan "protects" land from changes, as proposed by the project. Land use standards set forth under a specific plan are not required to remain fixed in perpetuity under state law. In fact the Government Code provides that legislative bodies may amend all or part of a general plan, and by extension a specific plan (Government Code Section 65454), when such amendment is deemed to be in the public interest. Specific plans may be amended as often as deemed necessary by the legislative body (Government Code Section 65453). The project is requesting amendments to the F/TSP and the General Plan from the County's Board of Supervisors, who is the County's legislative body. As a result, such a request is allowed by state law.

In addition, the land use standards set forth under a specific plan are not required to remain fixed in perpetuity under the County's Zoning Code, as some of the comments appear to suggest. Instead, the County's Zoning Code provides that "[a]ny specific plan may be amended by the same procedure as the plan was adopted" (Zoning Code Section 7-9-156.3). In the case of the F/TSP, that means the Planning Commission must first hold a public hearing to recommend to the Board of Supervisors that a proposed specific plan amendment be approved, disapproved, or conditionally approved (Zoning Code Section 7-9-156(c)). The Board of Supervisors must then hold at least one public hearing to approve, disapprove, or conditionally approve the proposed specific plan amendment (Zoning Code Section 7-9-156(c)).

2.5 Environmental Advantages of Clustering Homes

The proposed project would cluster homes in the southern portion of the site. By clustering the homes, the proposed project is responding to environmental planning techniques, especially in relation to oak tree preservation/mitigation, low impact development hydrological techniques, and fire management techniques that have evolved since the 2007 wildfire. In addition, Project Design Feature PDF-1, which requires approximately 51 acres to be dedicated as open space would limit the overall extent of land disturbance and preserve sensitive natural communities.

Some commenter's requested clarification regarding how the proposed project's clustered design was environmentally superior to the non-clustered design, which would not require an amendment to the F/TSP. Throughout the Draft EIR, the potential impacts of the proposed project and the non-clustered scenario were analyzed, and in many instances, the proposed project would result in reduced impacts as compared to the non-clustered scenario.

Some of the environmental issue areas in which the proposed project would result in fewer impacts as compared to the non-clustered scenario are highlighted below. General biological issues are addressed in General Responses 2.9, *Oak Trees*, and 2.10, *Wildlife Corridor*, below.

Hydrology and Water Quality

The clustered design of the proposed project has several hydrologic benefits relative to preservation of natural drainage patterns and compliance with current water quality regulations when compared with a non-clustered scenario. By concentrating (clustering) the development footprint, the site's main drainage along the easterly boundary would be preserved in its natural state. Therefore, the main drainage course's natural flow is maintained, decreasing the potential to affect downstream drainages with increased flows, velocities and sedimentation caused by filling drainages and conveying runoff through storm drain facilities.

Additionally, the proposed project incorporates design features and mitigation measures to mimic the hydrologic characteristics of the site in its natural, undeveloped state drainage, thereby adhering to current hydromodification requirements established by the Orange County National Pollutant Discharge Elimination System (NPDES) Program.

In a non-clustered scenario, implemented consistent with the development guidelines of the F/TSP, residential lots and open space areas would be located throughout the entire 113.7-acre site in order to help minimize landform alteration (cuts and fills greater than ten feet from natural topography and limited earth movement) when creating the building pads. The residential lots would be accessed by private roads requiring extensive grading across all three of the site's natural drainage courses, utilizing the entire property to provide the development potential established by the F/TSP. Private access roads would follow existing drainages to make road grades and slope heights feasible and consistent with the F/TSP's requirements and County standards due to the site's steep terrain.

Listed below in **Table 2.1** is a summary of benefits of the design of the proposed project versus the non-clustered scenario with regard to hydrology and water quality.

TABLE 2.1
HYDROLOGICAL/WATER QUALITY BENEFITS OF PROPOSED PROJECT VS NON-CLUSTERED SCENARIO

Benefit	Proposed Project – VTTM 17388	Non-Clustered Scenario
Grading envelope	Clustering of development maximizes pervious areas and minimizes impacts to natural drainage courses.	Numerous crossings of natural drainage courses and grading impacts to channels.
Street design	Street lengths and widths are minimized.	More street area required to access the entire site.
Water quality treatment	Centralized water quality basin facilitates ease of maintenance.	Numerous water quality basins more difficult and expensive to maintain.
Impacts to natural vegetation communities	Clustering maximizes the preservation of more natural vegetation.	More natural vegetation impacts.
Maintain natural processes in main drainage course	No obstructions to the major drainage courses; maximizes the natural processes within these areas.	Numerous crossings of the drainage courses result in culverts and storm drain facilities that act as barriers to the upstream distribution of native aquatic macronivertebrates.
Development setback from major drainage course	Development setback from major drainage courses.	No setbacks to major drainage courses.
Open space preservation	Clustered development allows for significant areas to be preserved and remain undeveloped thus reducing the need to mitigate throughout the entire watershed.	Entire project watershed impacted.

SOURCE: Hunsaker & Associates, 2011.

Fire Management

Site-specific wildland fire protection measures were used in developing the site plan for the proposed project. These “light on the land” measures are also utilized by the United States Forest Service. The specific tactics, known as MIST (Minimum Impact Suppression Tactics), were utilized to limit the wildland impacts of proposed project’s fire protection measures (e.g., fuel modification zones).

The Fire Master Plan and the Precise Fuel Modification Plan for the proposed project use the best (i.e., state-of-the-art) fire management tools available to limit the fire break/fuel break impacts of the fire defense system for the project, while still ensuring the level of fire protection that is vital to the community. Through the use of the Fire Behavior Analysis (BEHAVE) modeling, the proposed project’s fuel modification zones were specifically tailored to maximize the protection of the site and the surrounding area, and to minimize impact on the wildlands. The resulting site plan clusters the home sites on the project site.

Clustering the proposed project requires flexibility in implementing the land use development standards and design guidelines of the F/TSP. **Table 2.2** provides information to compare the non-clustered scenario, which was formulated based on the design principles of the F/TSP versus the proposed project, which was formulated based on state-of-the-art fire management land use planning techniques:

TABLE 2.2
FIRE MANAGEMENT CONSIDERATIONS RELATED TO THE PROPOSED PROJECT AND NON-CLUSTERED SCENARIO

Issue	Proposed Project	Non-Clustered Scenario
Response times	Meets the code.	Exceeds the desired times at the farthest end of the project area.
Clustered defensible design	Yes	No
Slope/terrain	No excessive slopes below the homes. Project is somewhat wind shadowed from the NE wind as the project is generally on the lee side of the ridgelines.	Some home sites in the northern portion of the project will have extreme slope issues (as some homes will be located at the bottom of the canyon). In the northern area the canyon aligns with the NE/SW worst case winds, making some homes more exposed to the effect of a wind-driven wildfire.
Adjacent wildland fuels	Irrigated interior slopes and vegetation area with approved plant palette.	Pockets of non-irrigated native vegetation (resulting in more fuel availability).

SOURCE: Firesafe Planning, 2009.

It would be more difficult to provide fire protection to a project that incorporates the design principles of the F/TSP (non-clustered scenario) than it would to provide fire protection to the proposed project. The non-clustered scenario would result in homes being located in a deep canyon with limited access and, therefore, more exposure to the wildland and the effects of wind and slope (i.e., some of the homes, located in a deep canyon, would be surrounded on three or four sides by the wildland interface and have steep slopes adjacent to them, making them more vulnerable to the effects of the wildfire).

Under the proposed project, homes are clustered into a single defendable location, which makes fire protection easier and more effective, as there is a single line of defense around the entire community. For the non-clustered scenario, a line of defense would be required around individual homes. If there were to be a wildland fire adjacent to the project site, under the proposed project, fewer fire department resources likely would be needed to protect the homes than would be needed for the non-clustered scenario.

It is possible that a Fire Master Plan and a Fuel Modification Plan for the non-clustered scenario could be fashioned in such a way as to be acceptable to the Orange County Fire Authority (OCFA). However, it is not possible for a fire defense plan formulated for a non-clustered scenario to be nearly as effective or efficient as is a plan that incorporates the fire safety design features that have been incorporated into the proposed project.

2.6 Goals and Objectives of the F/TSP Relating to Rural Character

A number of comments were raised in regard to the preservation of the rural character of the F/TSP area. The F/TSP contains the following goals (page I-5):

a. Rural Character/Forest Buffer: To preserve the rural character of the area and provide a buffer between urban development and the Cleveland National Forest.

b. Resource Preservation: To preserve significant landform, biological and scenic resources.

c. Development Potential: To ensure at least some development potential on each individual property.

d. Circulation/Infrastructure: To provide for a circulation system and other infrastructure adequate to serve the ultimate level of development permitted.

e. Equestrian/Recreational Opportunities: To provide equestrian and other recreational opportunities.

The F/TSP's goals relating to preservation of rural character and providing a buffer between urban development and the Cleveland National Forest are goals which apply to all proposed projects within the F/TSP. The F/TSP also contains objectives that correspond to each of these goals, including objectives relating to rural character and the forest buffer. In reviewing a proposed project within the F/TSP, a key question that Planning Staff, the Planning Commission or the Board of Supervisors must consider is the extent to which a proposed project implements these goals and objectives.

The proposed amendment to the General Plan is designed to make it clear that new development within the F/TSP area is governed by the F/TSP and must reflect the goals set forth in that plan, which include the plan's goals relating to rural character. The term "rural character" is not specifically defined in either the General Plan or the F/TSP, and the meaning of that concept must be understood within the context of the goals and objectives of the F/TSP relating to rural character, which are located in Section 1.1.0C (page 1-5) of the F/TSP. The amendment is not intended to change the F/TSP requirement that development within the F/TSP be consistent with the goals and objectives of the F/TSP relating to preservation of the rural character of the area. Because the proposed amendments do not alter or remove the provisions found on page 1-5 of the F/TSP relating to “rural character” there are no environmental impacts associated with the proposed General Plan amendment in relation to either the proposed Saddle Crest development or other future development within the F/TSP area.

The Saddle Crest Homes Area Plan (Section II, Land Use and Circulation Plans, and Section V, Preliminary Landscape Plan and Fuel Modification) contains general information indicating how the proposed project is designed to respond to the goal of the F/TSP to “…*preserve the rural character of the area*.” In addition to the general information provided in the Saddle Crest Homes Area Plan on how the project reflects the “rural character” goal in the F/TSP, a detailed analysis of how the project responds to the concept of “rural” in the F/TSP has been prepared by the

applicant. This document, entitled *Rural Components of Saddle Crest Homes* is included as **Appendix C** in this Final EIR document and contains information on:

- Streetscape and site planning
- Community-wide beyond streetscape
- Land use planning components
- Architecture
- Signage and lighting

2.7 Removal of the Term "Natural" from the UAR District Open Space Regulation

One of the amendments to the F/TSP proposed by the applicant is to clarify open space requirements within the UAR District by defining what constitutes open space (for the determination of required open space dedication) and by explicitly stating that grading is allowed in open space areas during initial site development activities.

The proposed amendments (to the F/TSP, Section III.D.8.8.i., Land Use Regulations, Upper Aliso Residential [UAR], Site Development Standards) would revise them so that section states:

> "*Each individual project proposal (excluding building sites of one (1) acre or less which were existing at the time of Specific Plan adoption) shall preserve a minimum of sixty-six (66) percent of the site in permanent open space which shall be offered for dedication in fee or within preservation easements to the County of Orange or its designee…No grading, structures (including stables and corrals), walls (except for river rock walls not to exceed three feet), fences (except open fencing) or commercial agricultural activities shall be permitted in the open space area. Fuel modification shall be permitted within said open space areas if required by the Fire Chief in conjunction with an approved Fuel Modification Plan; however, the development should be designed so that fuel modification impacts to open space areas are minimized. This provision does not prohibit grading during site development within areas that will remain as open space after development is completed*."

Use of the word "natural" in the existing version of this language in reference to open space has led to some members of the public to interpret this provision of the F/TSP to prohibit any activities during development that would alter or disturb in any way areas that will later be preserved as open space. However, the County has not consistently interpreted this provision to completely prohibit all alteration to the open space areas. First, it should be noted that Section III.B (page III-1) of the F/TSP states that "*[t]he meaning of words, phrases and terms used in the Specific Plan shall be the same as provided in Zoning Code sections 7-9-21 through 7-9-44, unless otherwise defined in Appendix C*." Appendix C does not include a definition of open space, thus the Zoning Code definition of open space would apply. Based on this text, the definition of "Open Space" in the F/TSP area would use the same definition in the Zoning Code, which is:

> "*Any parcel or area of land or water, public or private, which is reserved for the purpose of preserving natural resources, for the protection of valuable environmental features, or for providing outdoor recreation or education. For the purposes of measuring the amount of open space, it does not include public/private road right-of-way areas, driveway and parking areas not related to recreational uses, any buildings, building setback areas, or the required space between buildings, and surface utility facilities. Open space may include structures and impervious surfaces as identified in 'open space, useable'"* (Section 7-9-36, page 16).

Additionally, "*open space, usable" is defined as, "Open space without any slopes in excess of twenty (20) percent. Such open space may include structures and impervious surfaces such as tot lots, swimming pools, basketball courts, tennis courts, picnic facilities, and greenbelts with walkways or bicycle trails*" (page 16).

Thus, one interpretation of the term "natural open space" in the UAR Site Development Standards is that it refers to land reserved as open space that is not "usable" open space i.e., open space that does not contain structures and impervious surfaces, and which is reserved to preserve or protect natural resources, environmental features, or to provide other benefits to the environment. As noted above, another interpretation that has been given the term "natural open space" by some is that it refers to land in its natural state that has not been disturbed for any purpose. Other interpretations are also possible. This has resulted in inconsistent application of this provision in the past. Additionally, inconsistent interpretation could also have resulted from the fact that no other County specific plan or planned community text completely prohibits grading within open space areas. Even in the nearby community of Coto de Caza, the *Coto de Caza Specific Plan* states that "*Grading in Resource Preservation areas should be prohibited except for trail and public safety purposes such as fuel modifications. Cut and fill should be limited to 10 feet in height*" (page 16).

As a likely result of inconsistent definitions and inconsistent application of open space preservation throughout unincorporated areas, among the planning applications that were located and reviewed by County Staff, only four of eleven grading applications previously approved by the County meet the definition of "natural" open space, in which no development of construction activities were allowed within the open space areas. Of the seven applications that do not conform to this definition, two applications included grading within the open space preservation areas. An additional five applications included other minor improvements within the open space preservation areas (utility easements, drainage and irrigation lines, etc.). **Table 2.3** below indicates the Planning Applications that were located and reviewed by County Staff within the F/TSP that included grading with the construction of a new house, or an addition in excess of 640 square feet.

TABLE 2.3 APPROVED AND CONSTRUCTED PLANNING APPLICATIONS IN THE F/TSP AREA

Application	Location	Natural Open Space Includes
AP 93-003	30752 Hamilton Trail	No grading requested within natural open space areas.
PA940169	20091 Rose Canyon Drive	No grading requested within natural open space areas. *
PA990044	19601 Live Oak Canyon Road	Natural open space area includes: a driveway, turnaround, grading, a septic tank with leach lines and a retaining wall up to nine feet tall.
PA990090	30461 Hamilton Trail	No grading requested within natural open space areas, but natural open space contains irrigated fuel modification zone(s).
PA990201 & PA040084	18486 Country Home Road	No grading requested within natural open space areas, but natural open space contains fuel modification zone(s).
PA000015	19401 Oakie Dokie Lane	No grading requested within natural open space areas. *
PA010072 & PA070043	19878 Live Oak Canyon Road	No grading requested within natural open space areas, but natural open space contains irrigated fuel modification zone(s).
PA010093	19341 Oakie Dokie Lane	Natural open space area includes: one existing keystone wall (retaining wall) - up to 12-inches tall.
PA020041	20502 Rose Canyon Road	No grading requested within natural open space areas, but natural open space includes two Southern California Edison easements and existing retaining walls and driveway.
PA020074	19173 Live Oak Canyon	No grading requested within natural open space areas.
PA040004	30682 Hamilton Trail	No grading requested within natural open space areas, but natural open space contains irrigation and drainage PVC pipes (up to eight-inches in diameter) and a Southern California Edison tower and transmission lines (which requires ground clearance.

* Natural open space includes areas that have been previously graded.

SOURCE: OC Planning, 2012.

The proposed amendments would delete the term "natural" to eliminate the ambiguity that now exists in this part of the UAR District Regulations.

As required by the F/TSP, an Area Plan was prepared for the proposed project. An Open Space Plan is included in the Saddle Crest Homes Area Plan, which identifies a range of open space uses that can be included for dedication to meet the 66 percent open space requirement. For the proposed project, these uses actually account for 70 percent of the site, and include:

- Areas for the preservation of plant and animal life, including habitat for wildlife species;
- Areas of scenic and aesthetic value;
- Areas which serve as links between recreation and open space, including trails and scenic highway corridors;

- Areas which require special management or regulation because of hazardous or special conditions such as areas presenting high fire risks;
- Areas required for the protection of water quality and hydromodification mitigation;
- Areas containing scenic/resource preservation easements;
- Areas with community landscaping;
- Areas containing oak tree and other native vegetative planting; and
- Areas containing recreational trails.

The proposed F/TSP amendment for the UAR District's open space requirement does not change the 66 percent permanent open space requirement.

The second portion of the proposed amendment to the F/TSP is designed to make it clear that grading is allowed during development in areas that will be preserved as permanent open space, but is not allowed after initial development is complete. See Section 2.1.3 of this Final EIR for a further discussion of these amendments.

2.8 Growth Inducing Effects

Some comments raised related to the growth inducing impact of the proposed General Plan and Specific Plan amendments. The concerns expressed are mainly in relation to the growth inducing impact of the change of traffic methodology and impact on undeveloped parcels with the F/TSP and elsewhere.

The proposed General Plan and F/TSP amendments are summarized in Section 2.7, *Project Approvals and Intended Uses* (page 2-27), and in Chapter 8, *Growth-Inducing Impacts of the Project* (page 8-2) of the Draft EIR. In addition, the proposed text changes to the General Plan and F/TSP were available for review alongside the Draft EIR on the County's website.

Chapter 8 of the Draft EIR examined ways in which the proposed project or the non-clustered scenario could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Chapter 8 of the Draft EIR also included an assessment of other projects that would foster activities which could affect the environment, individually or cumulatively. As stated on page 8-3, the Specific Plan amendments would result in a direct growth inducing impact because the amendments would remove obstacles to development on the project site posed by the existing plan provisions.

As discussed in Chapter 8 of the Draft EIR, the proposed amendment to change the methodology for analyzing traffic impacts on Santiago Canyon Road would remove an obstacle to development because continuing to measure LOS with the existing methodology would preclude further development anticipated in the F/TSP. Refer to General Response 2.1.1 for further details regarding the traffic analysis methodology change. By changing the methodology for analyzing traffic impacts on Santiago Canyon Road, the proposed amendments could have growth inducing impacts within the F/TSP area by encouraging applications for development pursuant to the

F/TSP that would otherwise not be proposed under the existing F/TSP. However, even with the proposed amendments in place, future development proposals would need to be consistent with other provisions of the adopted F/TSP, including the provisions relating to the total amount of development that is allowed under the plan. In other words, the proposed amendments would not change the density allowed in the overall F/TSP beyond the maximum density permitted in the F/TSP, and would not change the uses allowed. While the amendment proposed as part of the project might remove regulatory obstacles to growth, any growth that would occur would be consistent with that originally contemplated by the F/TSP and would be governed by the provisions of the F/TSP.

It should be noted, as described on page III-2 of the Area Plan (Appendix B of the Draft EIR), several development projects that were once envisioned in the F/TSP will not occur, because the land has been sold for conservation purposes or for other reasons will not be developed. As a result, there has been an overall reduction of approximately 717 dwelling units from that originally envisioned by the F/TSP.

One comment notes that the proposed change in methodology for analyzing traffic on Santiago Canyon Road could also remove an obstacle to development within the Silverado-Modjeska Specific Plan area and other unincorporated areas near Santiago Canyon Road, and requests an analysis of population growth, new residential units, and other development in Silverado Canyon, Williams Canyon, Modjeska Canyon, Trabuco Canyon and any other unincorporated areas "contributing" traffic to Santiago Canyon Road. First it should be noted that the proposed plan amendment will not "facilitate" development in these areas as stated in the comment. Currently, the requirement that the HCM methodology be used in a traffic analysis of Santiago Canyon Road, coupled with the LOS C standard, precludes development approvals, except for projects that are exempted from application of the LOS C standard. The proposed amendment will remove the obstacle created by use of the HCM methodology (which calculates that LOS C is currently exceeded), because it would be replaced by a methodology, the v/c methodology, which more accurately predicts traffic impacts, based on the physical capacity of the roadway, the HCM and which calculates that actual and future LOS is much better than LOS C calculated utilizing the HCM methodology, which requires an artificial "percent time spent following" methodology which is not appropriate for utilization on a road with minimal passing opportunities.

The fact that this obstacle would be removed does not necessarily mean that any particular number (or any) new development applications will be submitted, or if submitted, that they will be approved. Indeed, as the same commenter notes with regard to potential development within the F/TSP, the maximum number of units identified as allowed within the F/TSP is not necessarily achievable on each parcel, and the ultimate number of residential units that might ultimately be approved (assuming development applications are submitted) will be dependent on compliance with the F/TSP. By the same token, the level of ultimate development within the Silverado-Modjeska Specific Plan area (and other unincorporated areas) that might ultimately be approved, in the event applications for development are submitted, will be dependent not only on density limits specified in existing zoning, but also on compliance with relevant land use policies and regulations, environmental and permitting requirements, and a wide variety of other factors.

In addition, a range of physical constraints including, but not limited to, those associated with topography, sensitive biological resources, fire prevention and access, would limit potential residential development within the Silverado-Modjeska Specific Plan area, as well as other areas outside the F/TSP area, but within unincorporated Orange County. As a result of the forgoing factors, it is not possible to estimate how many (if any) dwelling units might be applied for and approved, if the obstacle created by the existing requirement that the HCM methodology be used to assess traffic impacts on Santiago Canyon Road is eliminated. However, even if it were possible, the resultant research would not indicate that there would be more growth than already anticipated by the County of Orange General Plan.

Several other comments relating to growth inducing impacts contend that other proposed amendments will lead to growth within the County or the F/TSP area that would not occur in the absence of those amendments. However, those comments are based on misreading or misinterpretation of the proposed plan amendments and the incorrect assumption that they will make major changes to County policy. Thus, none of the amendments would allow the F/TSP's provisions to be disregarded as asserted in some comments (see General Response 2.1, above).

The proposed amendments to the UAR District regulations relating to Site Development Standards do represent a proposed change in existing regulations. Those proposed amendments to UAR District regulations would provide the County decision-makers with the authority to approve alternative Site Development Standards relating to building site area and grading, if the development plan would result in greater overall protection of environmental resources. The proposed amendment is designed to allow approval of development plans that would better protect biological resources, provide larger areas of unfragmented open space, provide for superior defensibility from fires (reducing the need for fuel modification activities), and provide other environmental benefits that cannot be achieved under the existing UAR District regulations. Parcels within the UAR District would only qualify for application of the alternative Site Development Standards, if the County determined that the proposed Area Plan for the parcel met the standard of providing overall environmental superiority as determined through the Area Plan approval process. The amendment to approve alternative Site Development Standards would not alter development densities or allowable land use(s) and would not result in greater levels of development within the UAR District of the F/TSP than originally provided for in the F/TSP.

Application of the alternative development standards to undeveloped parcels within the UAR District could result in additional residential lots in addition to the existing lots on each parcel (see General Response 2.1.3, above regarding the potential unit count). However, the total number of dwelling units for each of these parcel(s) would be within the ceiling established for each of these parcels by the F/TSP.

2.9 Oak Trees

Changes to Tree Transplant Science

Some commenters requested additional information regarding methods to be used to replace oak trees that will be removed as part of the proposed project.

Tree transplanting occurs regularly in the urban landscape areas and at nurseries with varying levels of success. Urban trees can be more easily transplanted because they are relocated into urban settings where they may receive "intensive care" for the remainder of their lives. Oak trees are not as readily transplanted when they are naturalized (grown in the field from an acorn) and even less likely to survive transplant when they have observable maladies, such as fire damage that occurred to most oaks on the project site. Even healthy oaks are very sensitive to root impacts, loss of roots, changes in position, torsional stresses, etc. At best, the transplantation process removes 75 to 90 percent of a tree's root mass, places a box on the sides and bottom of the tree, encapsulating a pre-determined root mass and soil volume, then moves the tree to a new location, often placing the box in the ground, loosening straps and backfilling. The tree is left with 100 percent of its above ground biomass (crown, branches and trunk) and 10 to 25 percent of its below ground biomass (roots). The challenges for the tree include structural (most large transplanted trees require cabling/bracing for extended periods or the remainder of their lives) and energy balance.

Energy balance is critical for trees as they must provide water and minerals to the leaves so they can photosynthesize and create carbohydrate so that the tree can continue carrying out physiological functions (structure, photosynthesis, storage, defense, etc.) necessary for survival. When the root mass is substantially reduced, trees can become stressed and predisposed to a variety of secondary pests and diseases. To balance the energy, a highly structured level of irrigation and fertilizers are required to attempt to keep the tree in balance. This is a very delicate balance that requires elaborate irrigation systems, timers, and monitoring and maintenance. As such, relocation trees must be placed in easily accessible areas. Oaks in these areas typically do not provide much in terms of habitat value. Some more adaptable trees (usually those that were in excellent health and structure prior to being boxed) may survive. Others will continue to persist in a declining manner for several years until they succumb to secondary maladies.

Naturalized oak trees grow under a much different regime then urban trees. They do not receive irrigation, relying on natural precipitation and ground water. Native oak trees are very sensitive to root disturbances. Tree relocation involves the removal of up to 90 percent of a tree's root mass. This is equivalent to removing the base from a wine glass and then expecting the glass to perform the same function. Trees that lose most of their root mass must then be cared for at an intensive level for at least a 5- to 10-year period, and semi-mature and mature oak trees that are relocated often die. Historically, many project sites have oak tree transplant death rates of 70- to 100-percent within five- to ten- years of oak tree transplant.

The success rates for transplanting large oak trees are relatively low. Transplanting large oak trees places a great deal of stress on the trees due to difficulties that mature oaks have adapting to

a new site after losing a minimum of 75-percent of their root mass. These additional stresses make oak trees more vulnerable to pests and diseases. Although they may live for a long time, large, transplanted oaks usually never reach equilibrium health and vitality needed for long-term survival. The trees will exist in a declining spiral, requiring diligent and costly monitoring and maintenance for the rest of their lives and based on the prominent landscape locations they must be transplanted into, do not provide high level habitat value.

Tree relocation contractors often warranty transplanted trees for a period of one or two years. Oak trees may decline and die within that time period, but they often require several years of decline before they die. The result is a failed "mitigation" program.

The F/TSP oak mitigation relies on transplanting any oak tree that would be impacted by a project unless it is determined by an arborist that the oak tree would not survive transplantation. In that case, the trees are to be mitigated by planting containerized oaks (typically 15-gallon oak trees). Use of 15-gallon oak trees is a viable method for mitigating trees, and for the proposed project, would result in the planting of 1,040 trees. Planting only 15-gallon trees as restoration trees in the site's preserved woodlands introduces risks as the larger trees are typically more sensitive, require more water, and are harder to establish than planting acorns, seedlings, and small container trees. The science of restoration continues to evolve. Since the F/TSP was drafted, numerous case studies and research projects have occurred testing various ways to restore oak woodlands (Tyler, et. al 2002; Plumb and Lasau, 1997). The results generally indicate that acorns would germinate and establish without any intervention (as they do in nature), but at a fairly low success rate. When irrigation is added, the survival rate increases dramatically, with 70 percent or more success possible. Herbivory and trampling of growing oaks can be a source of lowered success rates as well. Tree protection, such as root and shoot cages/shelters, protects the growing seedlings and saplings and has been found to increase growth rates as an unintended benefit. Providing maintenance on restoration sites, especially removal of weeds and non-native grasses around planting sites, providing mulch and in some cases, amending soils before planting, all help to improve conditions and establish trees.

Since the F/TSP was written, research tends to point to restoring oak woodlands with the use of acorns and these performance enhancing techniques. The establishment of oak trees as mitigation for impacted trees has occurred in various forms throughout California. Many mitigation efforts failed, because they were based on tree and woodland mitigation codes and requirements that were not supported by science. These failed mitigation efforts ultimately lead to establishment of a standard for oak mitigation in California (PRC 21083.4). The accepted mitigation now focuses on conservation of existing resources (the proposed project would conserve over 70 percent of its oaks) and tree planting. Tree planting under PRC 21083.4 is encouraged to be in the form of restoring former oak woodlands and monitoring and maintaining it for seven years. The proposed project's preferred mitigation approach integrates the latest in restoration techniques and meets the state mitigation standards. This approach is sound and would result in habitat enhancements, woodland restoration, and canopy replacement over time. Examples of oak woodland restoration research supporting this approach and the language from the state mitigation law are included as **Appendix D** of this Final EIR.

The Tree Management and Protection Plan recommends oak mitigation plan follows guidelines established by focused oak restoration research in California. For example, the document, *A Planner's Guide for Oak Woodlands* (2005) states:

> *"…it is the long-term propagation and growth of young oak trees which will ensure the survival of the species in a certain area and it is the extent of the woodland and species diversity in the woodland which contribute to the vitality and value of the resource…"*

Additionally, Bernhardt and Swiecky (2001) in their research paper *Restoring Oak Woodlands in California: Theory and Practice* provide a comprehensive view of oak restoration. They cite many benefits of using acorns, including: direct planting of acorns has several significant advantages over transplanting…unlike acorns, container transplants require space for propagation and care in the nursery; container transplants require more effort and care in planting than acorns; when direct-seeded in the field, seedlings of many California oak species produce a long taproot which can extract moisture from deep in the soil profile (Matsuda et al., 1989), whereas container-grown nursery stock may have impaired drought tolerance; container transplants normally require some irrigation, whereas direct-seeded acorns do not; non-indigenous soil-borne pathogens or insect pests from the nursery may be introduced with the transplants into the planting site, this risk is negligible for direct-seeded acorns.

Further, McCreary (2001, 2009) provides a comprehensive background on the inadequate oak regeneration throughout California and the techniques for collecting, storing, and planting acorns as well as the successful propagation and protection of seedlings in the resource *Regenerating Rangeland Oaks in California* (University of California Agriculture and Natural Resources, 2009). Many of the techniques discussed in detail in these leading sources on oak restoration form the basis of the Tree Management and Preservation Plan, and include:

- Promote restoration and restocking of degraded oak stands.
- Increase oak woodland habitat extent and quality on public lands.
- Promote oak woodland conservation and enhancement on private lands.
- Provide an intensive monitoring program for tree establishment period.
- Establish covenants codes and restrictions.
- Management and communications through homeowner's associations.
- Identify real and potential impacts.
- Utilize appropriate means of tree information collection – more detailed for project specific, less detailed for County or regional planning.
- Planting and maintenance of larger stands of different age classes should be considered to provide habitat values for on-site mitigation.
- Provide off-site mitigation.
- Protect individual trees during construction.
- Fence trees to prevent soil compaction over roots during construction.
- Plant seedling and sapling trees.

- Retain snag trees for nesting wildlife.
- Buffer between woodland and development.
- Monitoring program with replacement and/or fines for mortality.

The Project's Use of Acorns Will Result Reduced Impacts to Oak Woodlands

Some commenters suggested that use of acorns to replace lost oak trees would result in greater impacts than the use of transplantation. However, transplanting native oak trees that are poor candidates for relocation vs. planting acorns, seedlings, and larger container plants as detailed in the Tree Management and Preservation Plan (Appendix D.2 of the Draft EIR) is not recommended, because transplantation results in a reverse canopy retention, i.e., the transplanted trees retain nearly 100 percent of the impacted canopy initially, but over time, decline to a fraction of the canopy. Planting acorns, seedlings and container trees provides the opposite effect, that is, initially there is less tree canopy, but over time, the canopy exceeds the original canopy on the site.

Naturalized trees that are transplanted most often die within several years of transplant or persist in a declining condition for up to 20 years until they succumb to secondary pests. Oak mitigation programs are based on a long-term horizon. Oak impacts must be mitigated in a way that has been shown to result in the highest probability of success. The method for mitigating oak tree impacts has evolved considerably since the F/TSP was written. Tree relocation is not part of any recent tree protection ordinance, including the state mitigation law (PRC 21083.4). Oak tree planting is identified as one of the primary oak woodland mitigation measures under state law and CEQA in addition to conservation. Saddle Crest's Tree Management and Preservation Plan utilizes both.

Replacing the functions of impacted mature oak trees requires time, but that time is partially offset with higher volume of replacements, which provide more canopy faster. For example, acorns planted in 2013 and provided supplemental irrigation for a three- to four-year establishment period will reach heights from two to three feet tall. By the end of the seven-year monitoring period, the oaks will reach heights up to 16 feet tall. After 15 years, the oaks will reach heights up to 20 feet tall, and by the end of 20 years post-planting, the oaks can reach heights of 30 feet. Oak tree planting proposed for the project includes nearly 300 (2 to 1 replacement to impact ratio) larger nursery grown trees for the transitional areas of the site (adjacent preserved woodlands in fuel modification zones), along with enhancement planting of 2,000 or more acorns and seedlings in preserved woodlands. This significant level of planting will, over time, replace the lost canopy and provide significant habitat value along with a myriad of other benefits. While benefits associated with oak trees and woodlands are lost when trees are impacted, significant long-term benefits are gained as a result of the permanent preservation and enhancement and management of a majority of contiguous oak woodland habitat in non-developed portions of the project site. There are temporary impacts in terms of lost benefits of oaks, including reductions in groundwater infiltration, air and water pollution reduction and wildlife benefits while newly planted trees are being established.

The Projects Tree Management and Preservation Plan Will Reduce Oak Tree Habitat Loss

Avoiding tree impacts is a primary goal of the Tree Management and Preservation Plan. However, for impacts to trees that cannot be avoided, mitigation must focus on long-term solutions that benefit the species being impacted, as laid out in recent oak planning and oak mitigation studies. The preferred alternative offers a long-term benefit that, though, will not be fully realized for many years from now, is better than transplanting oak trees that are not suitable candidates for transplantation. Forward thinking is a key to successful oak tree impact mitigation. With the general lack of successful seedling establishment in Southern California, and specifically on this project site, it is foreseeable that the oak groves that do exist on-site would continue to decline and not be replaced at suitable levels to continue the woodlands in perpetuity. The restoration and enhancement offered by the preferred mitigation alternative can mitigate the loss of trees by providing assurances of future oak/sycamore habitat of varying values both on the transition edges and outside the project limits. The plan avoids planting oak trees within the developed area as the habitat value associated with these areas is diminished compared to the areas outside the development footprint. Planting trees within the grading footprint and highly maintained areas, as would be required with transplant trees, does not provide the same ecosystem benefits for lost trees as the preferred mitigation alternative. Trees in these areas have reduced habitat value due to noise, light, traffic, etc.

The potential receiver sites were selected based on their current inclusion of oak woodlands. The receiver areas include the most prominent groupings of oak trees on the site. These tree resources have been damaged by fire and past cattle grazing. The preserve area woodlands were selected as tree receiver sites, because they are logical areas where oak groves can be restored and enhanced. Their remote locations, relative to the development footprint, provide ideal areas where the restoration and enhancement of oak woodlands would have the highest positive impact for wildlife and invertebrate species that use this vegetation type. Therefore, the areas that have been selected in the preferred Tree Management and Preservation Plan for enhancement/establishment of oak and/or sycamore trees provide more ecological benefit to wildlife, while at the same time, other resource values, such as aesthetics, noise reduction, pollution reduction, etc., are maintained.

While benefits associated with oak trees and woodlands are lost when trees are impacted, significant long-term benefits are gained as a result of the permanent preservation and enhancement and management of significant acreages of contiguous oak woodland habitat in non-developed portions of the project area. The protected woodlands will continue to provide habitat, forage, and connectivity for wildlife and retain other woodland functions such as protection of water and air quality, aesthetics, and carbon dioxide reduction. These protected woodlands will be enhanced over time through the mitigation program and will provide additional habitat value as the mitigation trees establish and grow.

A woodland restoration plan will be prepared for the proposed project that will detail the planting program outlined in the project's Tree Management and Preservation Plan. It will include active and passive restoration of preserved woodland areas. It will implement an adaptive management

program, including long-term (seven-year) focused monitoring and management, leaving healthy, established trees to augment the preserved woodland habitat. The restoration plan will detail measures to help ensure success of the acorn seedlings, including using protective root and shoot cages, using specific planting requirements, including planting location and appropriate densities (carrying capacity), site preparation, use of dead and removed oak trees shading and habitat within receiver areas, acorn viability, seedling protection, weed management, and site maintenance, among others. Enhancement/restoration of natural regeneration within preserved oak-dominated habitats both increases overall tree populations and establishes succession populations (i.e., encourage conditions where woodlands would be characterized by a natural diversity of trees ranging from seedlings and saplings to varying ages of semi-mature and mature trees). Acorns, seedlings, and small container trees will be planted such that successful recruitment of understory trees is improved. One example of a restoration technique that will be detailed in the restoration plan is the use of existing oak trees. Many of the trees that will be removed by project implementation will be used in oak restoration areas. Tree trunks will be placed strategically to provide long-term nutrient cycling into the soil as the tree breaks down, habitat for insects and wildlife, and shade for establishing seedlings. Results of this restoration/enhancement planting will be a larger tree population and a net increase in existing woodland area and quality of woodland habitat, providing potential habitat for oak woodland wildlife species. The Tree Management and Preservation Plan includes adequate measures to ensure that the functions and values of displaced/impacted oaks for wildlife are mitigated.

State of the art woodland impact mitigation has been integrated into the Tree Management and Preservation Plan. For example, the document, *A Planner's Guide for Oak Woodlands* states: "*…it is the long-term propagation and growth of young oak trees which will ensure the survival of the species in a certain area, and it is the extent of the woodland and species diversity in the woodland which contribute to the vitality and value of the resource*…" The Tree Management and Preservation Plan provides for the following, all of which are consistent with recommendations and guidelines from the Planner's Guide document:

- Promote restoration and restocking of degraded oak stands.
- Increase oak woodland habitat extent and quality.
- Promote oak woodland conservation and enhancement.
- Provide an intensive monitoring program for tree establishment period.
- Provide management and communications through homeowner's associations.
- Identify real and potential impacts.
- Planting and maintenance of larger stands of different age classes should be considered to provide habitat values for on-site mitigation.
- Protect individual trees during construction.
- Fence trees to prevent soil compaction over roots during construction.
- Plant seedling and sapling trees.
- Retain snag trees for nesting wildlife.
- Buffer between woodland and development.

2.10 Wildlife Corridor

A number of comments were raised regarding the existing wildlife corridor and the potential development in proximity to this corridor. In addition, some commenters suggested the historic use of the corridor by deer as a nursery.

A wildlife corridor is shown in Exhibit II-3 of the F/TSP and Figure 3.3-2 of the Draft EIR (page 3.3-2). The corridor was mapped based by PCR Services Corporation on ground-truthing and fine-scale mapping of vegetation cover provided by the coast live oak woodland canopy. This map was compared to a digitization of the F/TSP diagram. At its narrowest point, the mapped corridor is approximately 250 feet in width. In accordance with the F/TSP, the wildlife corridor conservation area is a minimum of 400 feet in width. The proposed project would avoid a total width of 400 feet, including and surrounding the wildlife corridor. The Area Plan also provides for a landscape setback of at least 50 feet which will help minimize edge effects to the wildlife corridor. The corridor width meets and exceeds the width recommended in the literature by corridor experts.

This corridor connects the Cleveland National Forest and Limestone-Whiting Wilderness Park. As shown in Figure 3.3-2 (page 3.3-2 of the Draft EIR), a portion of the wildlife corridor passes through the westernmost portion of the project site. Wildlife corridors are described in Chapter 3.3, *Biological Resources*, beginning on page 3.3-17 of the Draft EIR. The F/TSP identified the wildlife corridor along the westernmost portion of the project site as having the greatest habitat value for wildlife movement. Although there are additional areas of concentrated use within the project site that could represent potential corridors, they either are not as densely vegetated or not oriented in a direction in which regional wildlife movement is likely to take place and are somewhat constrained by surrounding disturbance or development, particularly in the southern portion of the project site where native vegetative cover has been removed by extensive grazing, as determined by review of aerial photographs and verified during site visits conducted by PCR Services Corporation biologists. This wildlife corridor does not support a known wildlife nursery site,[4] nor does it support fish species, which includes the on-site ephemeral drainages.

The proposed project would avoid development within an approximate four-acre area of the wildlife corridor in the northwestern portion of the project site, which would be offered for dedication to the County for open space preservation.

The F/TSP details the uses permitted in the wildlife corridor. The primary intended uses of the wildlife corridors are wildlife movement and provision of habitat. The F/TSP states other uses within the corridor shall be allowed, but only if they are not detrimental to the primary use. The F/TSP does not preclude fuel modification activities within the wildlife corridor.

[4] Based on observations by PCR biologists, although deer have been observed on-site on multiple occasions, the presence of deer nursing areas on-site has not been established. There are no records of deer nurseries reported in the California Natural Diversity Database. Additionally, the U.S. Fish and Wildlife Service was contacted; however, they have no records of deer nurseries within the project site (personal communication, Debra Clarke, U.S. Fish and Wildlife Service, 2012). Based on information provided by the U.S. Fish and Wildlife Service from conversations with a local resident, a deer nursery occurs near the project site along Modjeska Grade Road, but not on the project site.

The proposed project's development footprint is clustered adjacent to Santiago Canyon Road and within an area that is near the existing development of Santiago Canyon Estates to the east/southeast. As shown in Figure 3.3-10 of the Draft EIR, the eastern boundary of the wildlife corridor is approximately 70 feet from the nearest proposed house. In accordance with the F/TSP minimum wildlife corridor width requirement, the wildlife corridor dedication area is 400 feet in width at its narrowest point.

The proposed structures would be setback approximately 70 feet from the boundaries of the wildlife movement corridor with a minimum 50-foot landscape buffer from the residential lots to transition the proposed development's interface (see **Figure 2.1** of this Final EIR).

It should be noted that recommendations for corridor widths are variable in the literature, and it is recommended that specific corridor widths are dependent upon site context and connectivity, and the social structure, diet, and foraging patterns of target species for specific areas.[5] A number of studies emphasize that human activities (e.g., disturbances due to human presence, night lighting, introduction of domestic animals, non-native plants) be minimized in proximity to corridors. [6, 7]

As shown in Figure 3.3-10 on page 3.3-85 of the Draft EIR, the development footprint [which includes the limit of grading (which includes fuel modification zone A) and fuel modification zone B (irrigation and vegetation clearing zone)] for the proposed project are outside of the wildlife movement corridor identified in the F/TSP.

Figure 2.1 of this Final EIR (revised Figure 3.3-10 from the Draft EIR) shows a view of the distances of the development to the edge of the wildlife corridor. This figure does not include new information but was revised to more clearly show the proposed project's compliance with the F/TSP setback requirements. Only a small portion of the project's fuel modification Zone C would potentially impact the corridor by requiring thinning of 0.8 acre of the understory of the coast live oak woodland community within the corridor. This has the potential to result in long-term indirect impacts due to the increased presence of human activity to maintain the fuel modification zone.

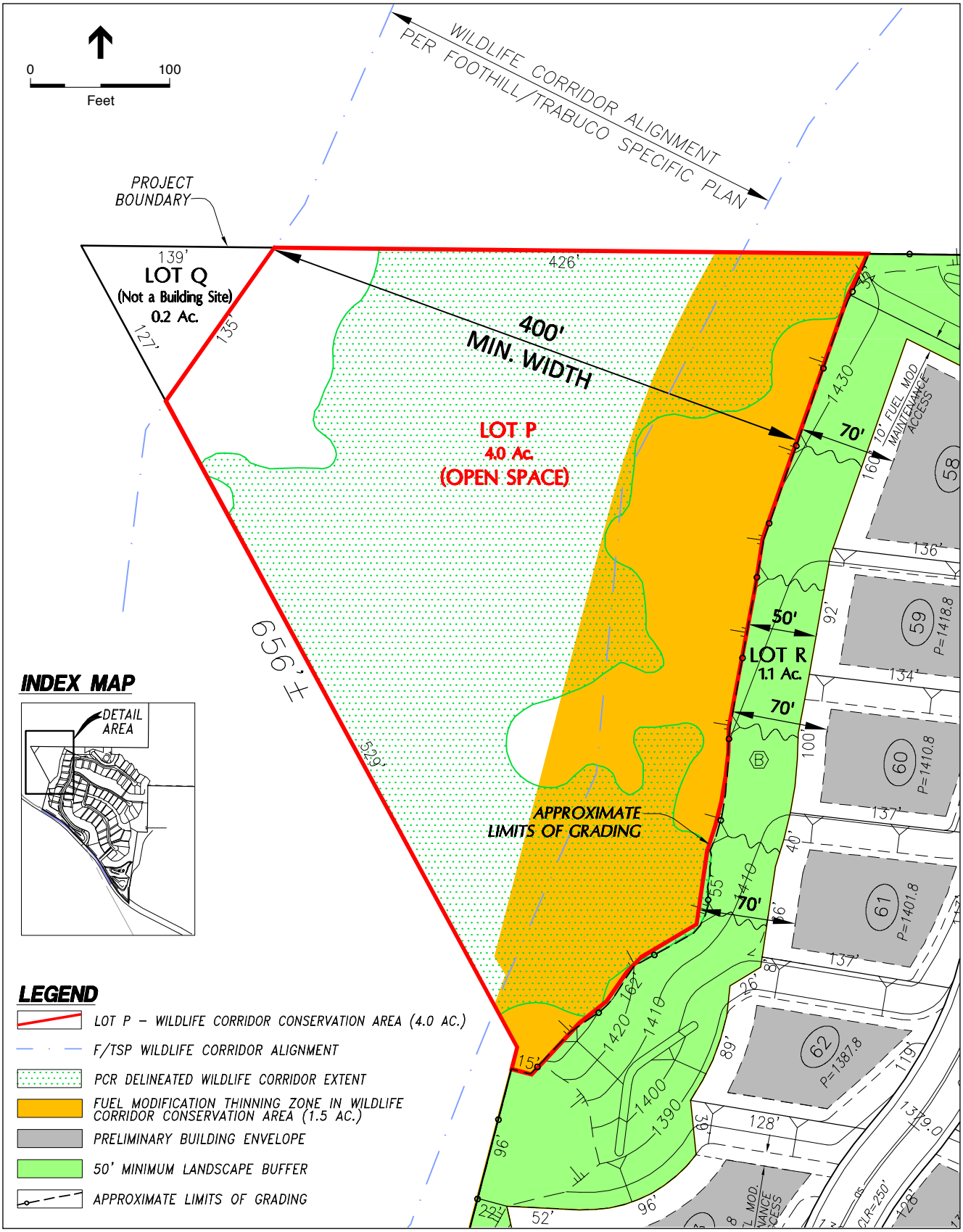
Further, ambient lighting levels, lights from roads and other disturbances, related to development, have the potential to deter wildlife from using a corridor. In addition, more secretive wildlife species, such as mountain lions, can be deterred by developed areas.

Although these effects may be a deterrent, secretive species such as the mountain lion are still expected to use this corridor since it is an established corridor providing them access from wilderness areas to the north to Limestone-Whiting Wilderness Area to the south. This species is known to travel through unfavorable habitats and it has been documented that mountain lions

5 Lindenmayer, D. and H. Nix. 2001. *Ecological Principles for the Design of Wildlife Corridors*. Conservation Biology, Volume 7, Issue 3 (Sep., 1993), 627-630.

6 McKenzie E. February 1995. *Important Criteria and Parameters of Wildlife Movement Corridors – A Partial Literature Review*.

7 Beier, P. March 1993. *Determining Minimum Habitat Areas and Habitat Corridors for Cougars*. Conservation Biology, Volume 7, No. 1, March 1993.



SOURCE: Hunsaker & Associates, 2012.

Figure 2.1
Wildlife Corridor Conservation Area Detail

move faster through areas that are less suitable. In addition, no lighting and only open fencing will be used within the 50-foot setback area.

The relatively small 0.8 acre area of the project site, within fuel modification Zone C will likely continue to function as part of the identified wildlife corridor since it abuts a denser portion of the wildlife corridor that provides adequate space, cover, food, and water, and does not contain obstacles that would generally hinder wildlife movement.

Thinning would only occur periodically and during the day when mule deer and mountain lion are less active (see Project Design Feature PDF-42). In addition, the ongoing removal of vegetation from thinning practices would not reduce the vegetation cover to a point where wildlife would not use the area for passage, foraging and shelter.

2.11 Non-Clustered Scenario

Some commenters requested additional information regarding how it was determined that the non-clustered scenario was consistent with the F/TSP.

The non-clustered scenario was analyzed for consistency with the F/TSP relative to the UAR Site Development Standards for building site area (minimum/average lot size), scenic roadway setback, grading quantities, slope heights for building pads and roadways, vertical elevation differences between proposed and existing grades, retaining wall heights, minimum street widths, and open space dedication requirements (Hunsaker & Associates, 2011). Further, in addition to the grading standards contained within the F/TSP, the non-clustered scenario was also analyzed with respect to other applicable development standards with the F/TSP and the Resources Component of the F/TSP (refer to **Appendix E** of this Final EIR). To demonstrate the plan's consistency, a Conceptual Grading Plan was prepared to illustrate the proposed design and highlight its adherence to the UAR District Site Development Standards. Summarized below are some of the non-clustered scenario's features as illustrated on the Conceptual Grading Plan (see **Figure 2.2**):

- Average lot size = 62,140 square feet/1.45 acres
- Minimum lot size = 21,928/0.5 acres
- Provided scenic roadway setback = 100 feet
- Maximum residential pad slope height = 10 feet
- Maximum roadway (serving two or more dwelling units) slope height = 30 feet
- Maximum non-residential slope height (retention/water quality basins/water tank) = 30 feet
- Maximum roadway retaining wall height = 20 feet
- Maximum building pad contour elevation change = 10 feet
- Maximum roadway contour elevation change = 39 feet
- Minimum paved street width = 28 feet

- Average grading quantity per residential lot (excludes roadway grading and remedial grading) = 314 cubic yards cut
- Provided open space dedication area = 75.4 acres (66 percent of 113.7-acre site)

The Conceptual Grading Plan (Figure 2.2) certifies compliance with the F/TSP Baseline Grading Standards with a signed/stamped copy of the County's grading checklist for the F/TSP by a registered civil engineer incorporated into the plan's details.

As stated on page 1-2 of the Draft EIR, the non-clustered scenario was included in order to provide a clear analysis of impacts associated with developing the project site consistent with the existing F/TSP. However, the non-clustered scenario is not proposed by the applicant to be developed.

2.12 The EIR Was Properly Noticed

Some commenters had concerns that the Draft EIR was not properly noticed. The County has fulfilled all public scoping and public participation requirements of CEQA. As discussed on page 1-5 of the Draft EIR, the Notice of Preparation (NOP) was prepared and distributed with the Initial Study for a 30-day public review period, which commenced on August 8, 2011. Copies of the Initial Study, NOP and distribution list, and comments received in response to the NOP/Initial Study were included as Appendix A, of the Draft EIR. The NOP was sent to the Office of Planning and Research (OPR) and to responsible and trustee agencies as required by CEQA (Refer to 14 Cal. Code Regs Section 15082). In addition, the NOP was sent to other appropriate state and local agencies and interested parties. The NOP included a description of the proposed project, identified the study area and project location, and provided a brief and preliminary list of environmental issue areas that could be impacted (per 14 Cal. Code Regs Section 15082). In addition to distribution of the NOP/Initial Study, a public scoping meeting was held at the Community Room of O'Neill Regional Park (30892 Trabuco Canyon Road) on August 31, 2011 at 7:00 P.M. to introduce the proposed project, including the proposed General Plan and Specific Plan amendments, and non-clustered scenario to the community, and to provide an opportunity for the public to submit verbal and written comments and recommendations regarding the issues to be addressed in the EIR. Notification of the meeting included a direct mailing of the notice to public agencies and the surrounding community (see page 1-6 of the Draft EIR).

Upon completion of the Draft EIR, a Notice of Availability (NOA) was submitted to OPR as required by CEQA (refer to 14 Cal. Code Regs Section 15085), along with copies of the Draft EIR for distribution to public agencies via the State Clearinghouse (14 Cal. Code Regs Section 15087(f)). *CEQA Guidelines* Section 15087(a) require that notice of the Draft EIR be mailed to all organizations and individuals who have previously requested such notice in writing and at least one of the following shall be completed:

- Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project;

ESTIMATED EARTHWORK QUANTITIES
Non-Clustered Scenario

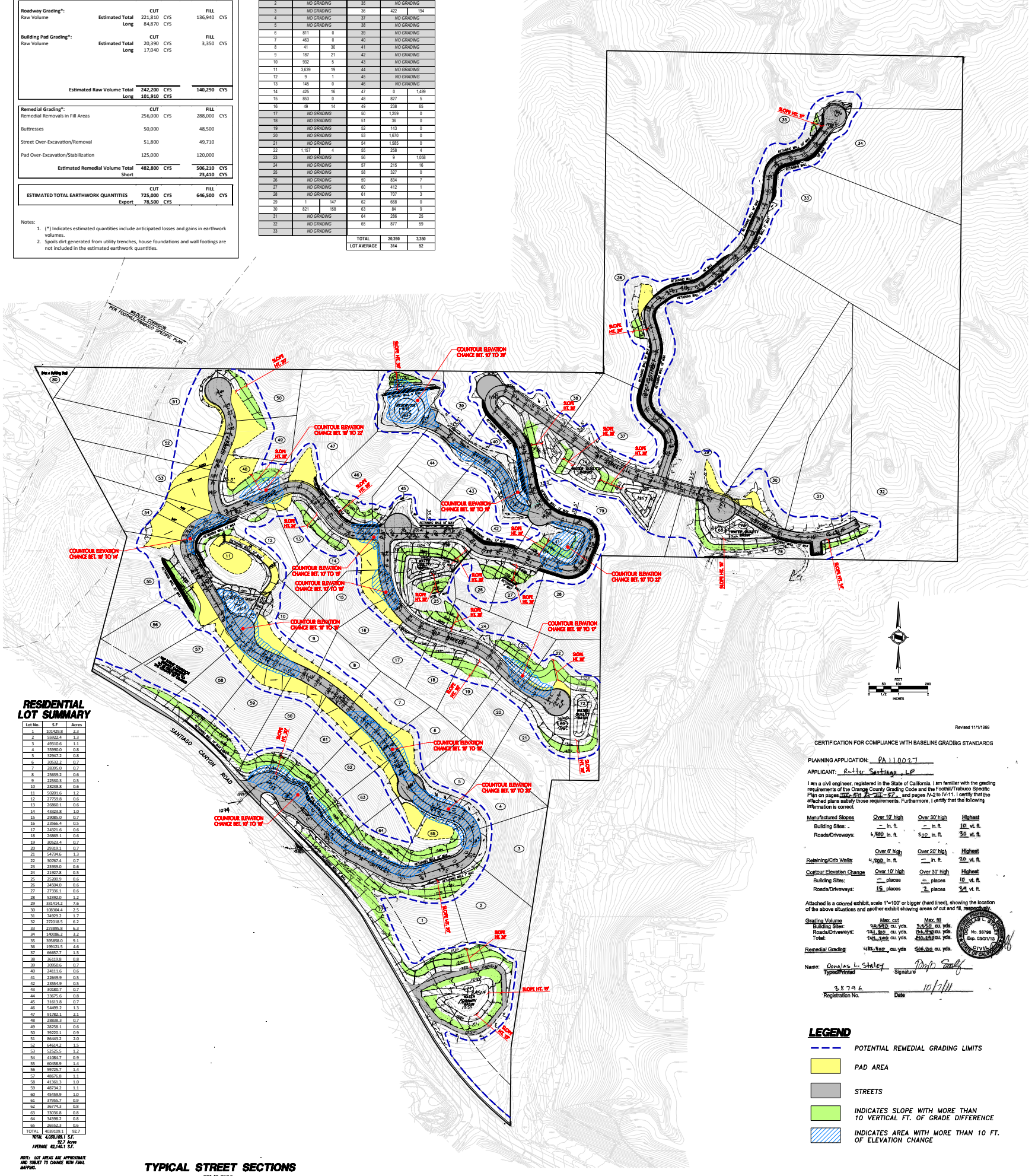
		CUT		FILL	
Roadway Grading*:					
Raw Volume	**Estimated Total**	221,810	CYS	136,940	CYS
	Long	84,870	CYS		
Building Pad Grading*:		**CUT**		**FILL**	
Raw Volume	**Estimated Total**	20,390	CYS	3,350	CYS
	Long	17,040	CYS		
	Estimated Raw Volume Total	**242,200**	**CYS**	**140,290**	**CYS**
	Long	**101,910**	**CYS**		
Remedial Grading*:		**CUT**		**FILL**	
Remedial Removals in Fill Areas		256,000	CYS	288,000	CYS
Buttresses		50,000		48,500	
Street Over-Excavation/Removal		51,800		49,710	
Pad Over-Excavation/Stabilization		125,000		120,000	
	Estimated Remedial Volume Total	**482,800**	**CYS**	**506,210**	**CYS**
	Short			**23,410**	**CYS**
		CUT		**FILL**	
ESTIMATED TOTAL EARTHWORK QUANTITIES		**725,000**	**CYS**	**646,500**	**CYS**
	Export	**78,500**	**CYS**		

Notes:
1. (*) Indicates estimated quantities include anticipated losses and gains in earthwork volumes.
2. Spoils dirt generated from utility trenches, house foundations and wall footings are not included in the estimated earthwork quantities.

BUILDING PAD SUMMARY

LOT NUMBER	CUT (CYS)	FILL (CYS)
1	NO GRADING	
2	NO GRADING	
3	NO GRADING	
4	NO GRADING	
5	NO GRADING	
6	811	0
7	463	0
8	41	30
9	187	21
10	932	5
11	3,639	19
12	9	1
13	145	0
14	425	16
15	853	0
16	49	14
17	NO GRADING	
18	NO GRADING	
19	NO GRADING	
20	NO GRADING	
21	NO GRADING	
22	1,157	4
23	NO GRADING	
24	NO GRADING	
25	NO GRADING	
26	NO GRADING	
27	NO GRADING	
28	NO GRADING	
29	1	147
30	821	158
31	NO GRADING	
32	NO GRADING	
33	NO GRADING	

LOT NUMBER	CUT (CYS)	FILL (CYS)
34	NO GRADING	
35	NO GRADING	
36	422	194
37	NO GRADING	
38	NO GRADING	
39	NO GRADING	
40	NO GRADING	
41	NO GRADING	
42	NO GRADING	
43	NO GRADING	
44	NO GRADING	
45	NO GRADING	
46	NO GRADING	
47	0	1,489
48	827	5
49	238	65
50	1,269	0
51	36	0
52	143	0
53	1,670	0
54	1,585	0
55	268	4
56	9	1,058
57	215	16
58	327	0
59	834	7
60	412	1
61	707	3
62	668	0
63	84	9
64	286	25
65	877	59
TOTAL	20,390	3,350
LOT AVERAGE	314	52



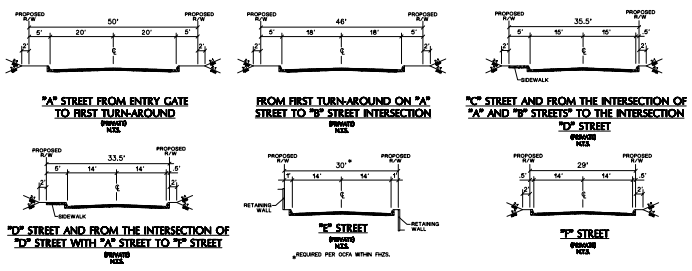
RESIDENTIAL LOT SUMMARY

Lot No.	S.F	Acres
1	101429.8	2.3
2	55922.4	1.3
3	49310.6	1.1
4	35990.0	0.8
5	32947.2	0.8
6	30532.2	0.7
7	28395.0	0.7
8	25639.2	0.6
9	22580.3	0.5
10	28238.8	0.6
11	50201.6	1.2
12	27759.8	0.6
13	26860.1	0.6
14	43323.8	1.0
15	29085.0	0.7
16	23566.4	0.5
17	24321.6	0.6
18	26869.1	0.6
19	30523.4	0.7
20	29319.1	0.7
21	54734.6	1.3
22	30767.4	0.7
23	23939.0	0.6
24	21927.8	0.5
25	25200.9	0.6
26	24504.0	0.6
27	27336.1	0.6
28	52392.0	1.2
29	331414.2	7.6
30	108304.4	2.5
31	74929.2	1.7
32	270138.5	6.2
33	273895.8	6.3
34	140086.2	3.2
35	395858.0	9.1
36	199121.5	4.6
37	66657.7	1.5
38	36119.8	0.8
39	30950.6	0.7
40	24111.6	0.6
41	22649.9	0.5
42	23554.9	0.5
43	30180.7	0.7
44	33675.6	0.8
45	31613.8	0.7
46	54499.2	1.3
47	91792.1	2.1
48	28838.3	0.7
49	28258.1	0.6
50	39220.1	0.9
51	86443.2	2.0
52	64614.2	1.5
53	52525.5	1.2
54	41084.7	0.9
55	60458.9	1.4
56	59725.7	1.4
57	48676.8	1.1
58	41361.3	1.0
59	48734.2	1.1
60	45459.9	1.0
61	37955.7	0.9
62	36774.3	0.8
63	33036.8	0.8
64	34398.2	0.8
65	26552.3	0.6
TOTAL	4039109.1	92.7

TOTAL 4,039,109.1 S.F.
92.7 Acres
AVERAGE 62,140.1 S.F.

NOTE: LOT AREAS ARE APPROXIMATE AND SUBJECT TO CHANGE WITH FINAL MAPPING.

TYPICAL STREET SECTIONS
NOT TO SCALE



Revised 11/1/1999

CERTIFICATION FOR COMPLIANCE WITH BASELINE GRADING STANDARDS

PLANNING APPLICATION: PA110027

APPLICANT: Rutter Santiago, LP

I am a civil engineer, registered in the State of California. I am familiar with the grading requirements of the Orange County Grading Code and the Foothill/Trabuco Specific Plan on pages III-51 to III-57 and pages IV-2 to IV-11. I certify that the attached plans satisfy those requirements. Furthermore, I certify that the following information is correct.

Manufactured Slopes	Over 10' high	Over 30' high	Highest
Building Sites:	— in. ft.	— in. ft.	10 vt. ft.
Roads/Driveways:	4,600 in. ft.	500 in. ft.	30 vt. ft.

Retaining/Crib Walls:	Over 6' high	Over 20' high	Highest
	4,200 ln. ft.	— in. ft.	20 vt. ft.

Contour Elevation Change	Over 10' high	Over 30' high	Highest
Building Sites:	— places	— places	10 vt. ft.
Roads/Driveways:	15 places	2 places	34 vt. ft.

Attached is a colored exhibit, scale 1"=100' or bigger (hard lined), showing the location of the above situations and another exhibit showing areas of cut and fill, respectively.

Grading Volume	Max. cut	Max. fill
Building Sites:	20,390 cu. yds.	3,350 cu. yds.
Roads/Driveways:	241,810 cu. yds.	136,590 cu. yds.
Total:	242,200 cu. yds.	140,290 cu. yds.
Remedial Grading	482,800 cu. yds	506,210 cu. yds.

Name: Douglas L. Stanley (Typed/Printed) Signature

38796 Registration No. Date 10/7/11

DOUGLAS L. STANLEY No. 38796 Exp. 03/31/13 CIVIL STATE OF CALIFORNIA

LEGEND

- POTENTIAL REMEDIAL GRADING LIMITS
- PAD AREA
- STREETS
- INDICATES SLOPE WITH MORE THAN 10 VERTICAL FT. OF GRADE DIFFERENCE
- INDICATES AREA WITH MORE THAN 10 FT. OF ELEVATION CHANGE

LOT SUMMARY TABLE

LOT NO.	LAND USE	GROSS ACRES
1 – 65	RESIDENTIAL	92.7
66	GUARD GATE	0.5
67	RESERVOIR SITE	0.9
68 – 70	SEWER LIFT & WATER PUMP STATIONS	0.4
71 – 75	WATER QUALITY BASINS	6.5
76 – 77	REGIONAL RIDING & HIKING TRAIL	0.7
78 – 80	OPEN SPACE LOTS	5.1
	STREETS	8.5
	EXISTING SANTIAGO CANYON ROAD	0.4
	TOTAL PROJECT AREA	113.7

NOTE: LOT AREAS ARE APPROXIMATE AND SUBJECT TO CHANGE WITH FINAL MAPPING.

LAND USE SUMMARY

LAND USE	GROSS ACRES
PRIVATE STREETS	9.0
EXISTING SANTIAGO CANYON ROAD	0.4
GRADED AREA	21.6
ADDITIONAL DEVELOPABLE AREA	7.3
OPEN SPACE	75.4
TOTAL PROJECT AREA	113.7

SOURCE: Hunsaker & Associates, 2012.

Figure 2.2
Conceptual Grading Plan
Non-Clustered Scenario

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- Posting of the notice by the public agency on and off the site in an area where the project is to be located; or
- Direct mailing to the owners and occupants of property contiguous to the parcels on which the project is located.

The County published the NOA for the Draft EIR in the OC Register and at the same time mailed the NOA to all parties that expressed interest in the propose project and all property owners within the UAR District of the F/TSP and within 300 feet of the project site. The NOA was also posted with the Orange County Clerk, at the 300 N. Flower Street Osborne Building and at the County Hall of Administration (14 Cal. Code Regs Section 15087(d)). A copy of the NOA is also included as **Appendix F** of this Final EIR. The Draft EIR was properly noticed per the requirements of CEQA

Further as stated in the NOA, copies of the Draft EIR were available for the public to review at OC Planning offices, three Orange County Branch libraries, and the OC Planning website (per 14 Cal. Code Regs Section 15087(g)). The public review period for the Draft EIR lasted 49 days, ending on June 4, 2012. The required public review period under CEQA is 45-days (per 14 Cal. Code Regs Section 15105(a)). Notice of the availability of the Draft EIR was also published in the OC Register (see **Appendix G** of this Final EIR). In addition, further notice will be provided in the manner specified by the Government Code for the General Plan and Specific Plan amendments.